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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/372,037	08/11/1999	KATSUHITO FUJIMOTO	826.1559/JDH	9963

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EXAMINER

GRANT II, JEROME

ART UNIT PAPER NUMBER

2626

DATE MAILED: 06/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 09/372,037	Applicant(s) FUJIMOTO ET AL.	
	Examiner Jerome Grant II	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-37 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 38-40 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

JEROME GRANT II
PRIMARY EXAMINER

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Detailed Action

1.

Claim 39 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 2. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 40 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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2.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1-4 and 38-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Floeder.

With respect to claim 1, Floeder teaches an apparatus for recognizing a grey scale image, comprising: an input means 24 for inputting a grey scale image, see step 94 of figure 5 and col. 7, lines 52-60. Floeder teaches a multi-code image binary coding means (preferred algorithm according to col. 7, lines 42-63) for converting the input gray scale image to a binary image by determining whether each pixel corresponds to a background or a plotting area. See col. 7, lines 53-63 and col. 8, lines 1-8.

With respect to claims 2, 3 , 39 and 40, Floeder teaches an apparatus shown by figures 12-16 for recognizing a color document according to col. 1, lines 40-45 and 50-56.. Floeder teaches a grey scale image extracting means (scanner and binarizer according to col. 1, line 52 for extracting grey scale images input from an inputted color document image (see col. 1, lines 40-45); and multi-code image binary coding means (processor 10) for converting the gray scale image to a binary image by determining whether each pixel corresponds to a background area or a plotting area and producing

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values in which each pixel value is either a background or plotting area. See col. 4, lines 14-20 and col. 6, lines 1-15.

With respect to claim 4, see col. 1, lines 50-55. See also binary median filter 24. the compression techniques are taught at col. 1, lines 55-60.

With respect to claim 38, Floeder teaches a multi-code image binary coding means (preferred algorithm according to col. 7, lines 42-63) for converting the input gray scale image to a binary image by determining whether each pixel corresponds to a background or a plotting area. See col. 7, lines 53-63 and col. 8, lines 1-8.

3.

Claims Objected

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4.

Claims Allowed

Claim 6 is allowed for the reason the prior art does not teach or suggest in claimed combination, "... where said binary image combining means sets a pixel value in the binary image to be outputted, corresponding to a pixel which is not contained in any of the partial areas in the gray scale image to a value of a background color. "

Claim 7 is allowed for the reason the prior art does not teach in claimed combination, "... where said binary image combining means assigns a corresponding pixel value in the partial binary image obtained from the partial area with top-priority which is determined based on a quantitative priority according to a predetermined criterion as a pixel value in the binary image to be outputted, corresponding to a pixel which is contained in one or more partial areas of the gray scale image.

Claim 9 is allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area extracting means for one or more partial areas in the gray scale image, partial image binary -coding means for executing a binary-coding process for each of the partial areas of the gray scale image and extracting a partial

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binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image.”

Claim 10 is allowed for the reason the prior art does not teach or suggest in claimed combination, “... said multi-code image binary-coding means further comprises: partial area extracting means for one or more partial areas in the gray scale image, partial image binary-coding means for executing a binary-coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and said partial area extracting means outputs one or more rectangular areas as the partial areas.”

Claims 11-25 are allowed for the reason the prior art does not teach or suggest, “... partial image binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial area extracting means extracts one or more partial areas using an edge strength image or edge direction image obtained by executing an edge extracting process for the gray scale image.”

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Claims 26 and 27 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial image binary coding means extracts the partial binary image by executing a binary coding process for a designated partial area of the gray scale image, based on a single threshold."

Claims 28-32 are allowed for the reason the prior art does not teach or suggest in claimed combination, "... partial area extracting means for one or more partial areas in the gray scale image, partial image binary coding means for executing a binary coding process for each of the partial areas of the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image and where said partial image binary coding means roughly extracts a plotting area by executing a binary coding process for a designated partial area of the gray scale image, based on a single threshold, and extracts the partial binary image by executing a local binary coding process in which a variable threshold is obtained for each pixel in the plotting area."

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Claims 33-37 are allowed for the reason the prior art does not teach or suggest in claimed combination, "...partial area extracting means or one or more partial areas in the gray scale image, partial image binary coding means for executing a binary coding process for each of the partial areas on the gray scale image and extracting a partial binary image; and binary image combining means for combining the one or more partial binary images and for constituting the binary image of the entire scale image, and where said partial image binary coding means calculates a gray scale partial image corresponding to a designated partial area by interpolating a pixel value of the gray scale image and executing a subpixel generating process which increases a number of pixels of an image, and extracts the partial binary image by executing the binary coding process for the gray scale partial image."

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5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 703-305-4391. The examiner can normally be reached on Mon.-Fri. from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams, can be reached on 305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Grant II


JEROME GRANT II
PRIMARY EXAMINER